

NOAA Climate Test Bed (CTB) Meeting

Nov. 9-10, 2015

NCWCP Conference Room

5830 University Research Court
College Park, MD 20740

The CTB Meeting is organized by CTB Management Team (CTB, MAPP, NCEP, NWS/OSTI). The purpose of the CTB Meeting is

- 1) To present CTB ongoing activities and discuss the R2O/O2R process,
- 2) To discuss potential future CTB directions based on NWS operational requirements and science advances/opportunities to help inform the updated CTB 5-10 year Science Plan and Implementation Strategy, in preparation.

Agenda of Day 1 (Nov. 9)

Remote Access Information:

Teleconference number: 1-866-692-3158 Passcode: 78838772

WebEx meeting number: 620 239 592 (ctrl + click the link below)

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Session 1: Overviews (Chair: Huang)

08:30 Welcome and Logistics (Huang)

08:40 NOAA focus on advancing the R2O process: implications for the Climate Test Bed (Uccellini and McLean)

09:20 Advancing climate science & services at NOAA's Climate Program Office (Higgins)

09:40 NOAA CTB Overview (Huang)

10:00 MAPP Program (Mariotti)

10:20 NGGPS Program (Toepfer)

10:40 Break

Session 1: Overviews (Chair: Mariotti)

11:00 NCEP/EMC operations, gaps and requirements (Hendrik)

11:20 NCEP/CPC operations, gaps and requirements (Dewitt)

11:40 NWS regional and local service needs (Horsfall)

12:00 Highlight of CTB recent R2O/O2R accomplishments: NMME (Kirtman)

12:20 Lunch

Session 2a: Ongoing CTB project reports – Modeling (Chair: Tolman and Ek)

13:20 Cloud and Boundary Layer Climate Process Team (CPT) (Bretherton)

13:40 A CPT for improving Turbulence and Cloud Processes in NCEP Global Models (Krueger)

14:00 Cloud Microphysics and Their Interactions with Aerosols (Lu)

14:20 Improving CFS Representation of Soil-Hydrology-Vegetation (Chen)

14:40 Advances in Lake-Effect Process Prediction within CFS for N. America (Jin)

15:00 Discussion on progress, issues and overall projects' contribution to CFSv3 and NGGPS model development

15:30 Break

Session 2b: Ongoing MAPP-CTB project reports – Prediction (Chair: Dewitt)

- 15:50 Assessment of CFS predictions of U.S. severe weather activity (Tippett)
- 16:10 Probabilistic forecast products for the NMME seasonal forecast system (Barnston)
- 16:30 Subseasonal NMME Forecasts: Skill, Predictability, and MME Combinations (Delsole)
- 16:50 Development of new forecast products for weeks 3 and 4 (Johnson)
- 17:10 Discussion on progress, issues and overall projects' contribution to NWS prediction suite
- 17:40 Adjourn

18:30 Informal dinner gathering at (carpools will be organized)
Ledo's Restaurant (301.422.8122; <http://ledorestaurant.com/mobileindex.html>)
4509 Knox Road
College Park, MD 20740

Agenda of Day 2 (Nov. 10)

Remote Access Information:

Teleconference number: 1-866-692-3158 Passcode: 78838772

WebEx meeting number: 628 912 419 (ctrl + click the link below)

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08:30 Welcome from NCEP Director (Lapenta)

Session 3: NOAA CTB R2O process

- 08:50 CTB R2O process (Mariotti and Huang)
- 09:10 Break to set up rooms for breakout sessions

Session 4: Breakout Discussions on CTB long-term directions

Group 1: Modeling and Data Assimilation (Lead: Bretherton, Rapporteur: Ek)

Remote Access Information:

Teleconference number: 1-877-953-0315 Passcode: 1262920

GoToMeeting: <https://global.gotomeeting.com/join/703126781>

Meeting ID: 703-126-781

- 09:25 CFSv3 vision and overall plan (Saha)
- 09:40 NEMS (Deluca)
- 09:55 Facilitate external community contribution to CFSv3 development (Bretherton)
- 10:10 Discussion: Expanding on Suru's presentation, possible topics to include:
 - 1) Near-term needs (software, hardware, collaborative efforts) for CFSv3 development?
 - 2) CFSv3 performance metrics and diagnostics– including model biases, balance between timescales; maintaining correct ensemble spread, minimizing effort involved in reforecasting
 - 3) Strategy for advancing DA (coupled DA; better land surface initialization for subseasonal

forecasts

- 4) Facilitating a community-friendly CFS development environment

Group 2: Climate Prediction/ Products (Leads: Kirtman and Gottschalck, Rapporteur: Becker)

Remote Access Information:

Teleconference number: 1-872-240-3412, Access Code: 587-910-237

Audio PIN: Shown after joining the meeting

Meeting ID: 587-910-237

GoToMeeting: <https://global.gotomeeting.com/join/587910237>

- 09:25 CPC operational requirements (Gottschalck)
- 09:40 Research advances in predictability and prediction (Kirtman)
- 09:55 User perspectives (Ray)
- 10:10 Discussions

Group 3: Climate Reanalysis for monitoring and reforecast initialization (Leads: Whitaker and Carton; Rapporteur: Long):

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WebEx meeting number: 628 912 419 (ctrl + click the link below)

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- 09:25 Reanalysis needs for climate monitoring (Long)
- 09:40 Reanalysis needs for reforecast initializations (Whitaker)
- 09:55 Ocean reanalysis (Carton)
- 10:10 Discussions on differences between the reanalysis for monitoring and reforecast initializations, how to transition reanalysis research to improved operational reanalysis, and how to coordinate the two reanalysis efforts in a resource-constrained environments.
- 11:15 Break to take a group picture and to set up the room back to the plenary setting
- 11:30 Report to the Plenary Session and discussions on next steps
- 12:30 Adjourn plenary meeting

Day 2 (Nov. 10) Afternoon (1:30 – 3:30?)

Session 5: Parallel project-level meetings with NCEP collaborators.

Individual projects/teams will discuss science and R2O/O2R issues of their ongoing CTB projects. The rooms will be arranged by NCEP collaborators in the projects.

- 1) 3 atmosphere modeling projects
- 2) 2 land modeling teams
- 3) 4 prediction projects
- 4) NMME Team Meeting (to be held in the conference center): (i) to discuss the prediction science agenda for the coming year and (ii) to establish collaborative links with the operational forecasters in terms of both science and the forecast production.